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EXAMINER	
AJAYI, JOEL	
ART UNIT	**PAPER NUMBER**
2617	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/661,107	BIMS, HARRY	
	Examiner	Art Unit	
	Joel Ajayi	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims **1-35** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-8, 15-17, 20, 21, 23-26, 29-31, 33-35 are rejected under 35 U.S.C. 102(e) as being anticipated by **Padovani et al. (U.S. Patent Application Number: 2003/0063583).**

Consider **claim 1;** Padovani discloses a method, comprising:

One or more communication devices configured to coordinate transmissions of data packets and function as an access point with respect to first and second mobile stations wirelessly communicatively coupled to the one or more communication devices (paragraph 8, lines 1-3; paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27); determining (C/I measurements) within the one or more communication devices whether wirelessly transmitting first and second packets to the first and second mobile stations, respectively will create interference between the first and second packets (paragraph 8, lines 1-3; paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27); and wirelessly transmitting (time slots and scheduling) the first and second packets when it is determined whether transmitting the first

and second packets will create interference and in accordance therewith (paragraph 8, lines 1-3; paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27).

Consider **claim 15;** Padovani discloses a method, comprising:

Receiving, at a switch (base station controllers also act as switches), first data and second packets designated for delivering to a first mobile station and second mobile station respectively (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); detecting whether overlapping transmissions of the first and second packets will result in interference that would prevent completion of the transmissions (paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27); scheduling transmissions of the first and second packets to avoid the interference when it is determined (C/I measurements) if overlapping transmissions of the first and second packets will result in interference(paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27); and transmitting the first and second packets to one or more communication devices coupled to the switch (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Consider **claim 20;** Padovani discloses a method, comprising:

Receiving, at a switch (base station controllers also act as switches), a packet destined to a mobile station (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); determining (C/I measurements), at the switch, whether immediately transmitting the packet to the mobile station will cause an interference with other communications destined to the mobile station (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); and transmitting the packet to a communication device communicatively coupled to the switch, wherein the packet is forwarded wirelessly to the mobile

station when it is determined that transmitting the packet will not cause interference wherein the communication device and other communication devices coupled to the switch coordinate transmissions of data packets to function as an access point with respect to the mobile station (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Consider **claim 29;** Padovani discloses a system, comprising:

One or more communication devices coupled to a switch (base station controllers also act as switches), the one or more communication devices communicating wirelessly with one or more mobile stations (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27), wherein the one or more communication devices coordinate transmissions of data packets to function as an access point with respect to the one or more mobile stations, the coordinating including determining (C/I measurements), at the switch, whether immediately transmitting the packets to the one or more mobile station will cause an interference with other communications to the one or more mobile stations (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Consider **claim 33;** Padovani discloses an apparatus, comprising:

Means for one or more communication devices configured to coordinate transmissions of data packets and function as an access point with respect to first and second mobile stations wirelessly communicatively coupled to the one or more communication devices (paragraph 8, lines 1-3; paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27); means for determining (C/I measurements) with the one or more communication devices whether wirelessly transmitting first and second packets to the first and second mobile stations, respectively will create interference between the first and second packets (paragraph 8, lines 1-3;

paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27); and means for wirelessly transmitting the first and second packets when it is determined whether transmitting the first and second packets will create interference and in accordance therewith (paragraph 8, lines 1-3; paragraph 19, line 9 – paragraph 20, line 11; paragraph 93, lines 1-27).

Consider **claim 34;** Padovani discloses an apparatus, comprising:

Means for receiving, at a switch (base station controllers also act as switches), first data and second packets designated for delivering to a first mobile station and a second mobile respectively (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); means for detecting whether overlapping transmissions of the first and second packets will result in interference that would prevent completion of the transmissions (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); means for scheduling transmissions of the first and second packets to avoid the interference when it is determined (C/I measurements) if overlapping transmission of the first and second packets will result in interference (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); and means for transmitting the first and second packets to one or more communication devices coupled to the switch (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Consider **claim 35;** Padovani discloses an apparatus, comprising:

Means for receiving, at a switch (base station controllers also act as switches), a packet destined to a mobile station (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); means for determining (C/I measurements), at the switch, whether immediately transmitting the packet to the mobile station will cause an interference with other

communications destined to the mobile stations (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); and means for transmitting the packet to a communication device communicatively coupled to the switch, wherein the packet is forwarded wirelessly to the mobile station when it is determined that transmitting the packet will not cause interference (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27); means for wherein the communication device and other communication devices coupled to the switch coordinate transmission of data packets to function as an access point with respect to the mobile station (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Consider **claims 2, 17, 21, and 31;** Padovani discloses that the one or more communication devices are operating as a communication channel in accordance with a wireless communication protocol (IS-95) (paragraph 8, lines 1-14).

Consider **claim 4**; the combination above clearly discloses a switch coupled to the one or more communication devices, and transmissions of the first packet and the second packet to avoid interference that would prevent one or both of the transmissions from being received by the first and the second mobile stations (paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Consider **claims 5-8, 26**; the combination above clearly discloses detecting whether concurrent transmission of the first and second packets will cause interference prior to performing the scheduling; and transmitting the first and second packets to the first and second mobile stations without performing the scheduling, if overlapping transmissions of the first and

second packets will not cause interference (paragraph 18, lines 1–18; paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 8, lines 1-26; paragraph 93, lines 1-27).

Consider **claim 16, 23-25, 30**; the combination above clearly discloses that if overlapping transmissions of the first and second packets will not result in interference that would prevent completion of the transmissions, the method further comprises transmitting wirelessly from the one or more communication devices the first and second packets to the first and second mobile stations respectively without delay (paragraph 8, lines 1-3; paragraph 19, line 9 – paragraph 20, line 11; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3, 18, 22, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Padovani et al. (U.S. Patent Application Number: 2003/0063583)** in view of **Raith et al. (U.S. Patent Number: 5,818,829).**

Consider **claims 3, 18, 22, and 32**; Padovani clearly disclose the claimed invention except that one or more communication devices and the first and second mobile stations accommodate packet transmissions at a substantially identical communication frequency.

In the same field of endeavor Raith clearly discloses that one or more communication devices and the first and second mobile stations accommodate packet transmissions at a substantially identical communication frequency (column 2, lines 23-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Raith into the method of Padovani in order to provide a method for increasing throughput capacity of a mobile station transmitting a plurality of consecutive bursts to a base station in a communication system.

Claims 9, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Padovani et al. (U.S. Patent Application Number: 2003/0063583)** in view of **Kamel et al. (U.S. Patent Number: 6,285,886).**

Consider **claims 9, 10, 12, and 13**; Padovani clearly disclose the claimed invention except maintaining in a first database information regarding whether communications of the one or more communication devices interfere with each other.

In the same field of endeavor Kamel clearly discloses maintaining in a first database information regarding whether communications of the one or more communication devices interfere with each other (column 4, lines 4-12, 44-49).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kamel into the method of Padovani in order to transmit control data between a base station and a mobile station on a single communications channel to minimize or reduce overhead traffic from the control data.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Padovani et al. (U.S. Patent Application Number: 2003/0063583)** in view of **Lundby (U.S. Patent Application Number: 2003/0112778).**

Consider **claims 11**; Padovani clearly disclose the claimed invention except periodically transmitting a test packet to collect interference information.

In the same field of endeavor Lundby clearly discloses periodically transmitting a test packet to collect interference information (paragraph 32, lines 1-9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Lundby into the method of Padovani in order to provide a method and apparatus for efficient broadcasting in wireless packet data systems.

Claims 14, 19, 27, and 28are rejected under 35 U.S.C. 103(a) as being unpatentable over **Padovani et al. (U.S. Patent Application Number: 2003/0063583)** in view of **Ota et al. (U.S. Patent Number: 6,115,615).**

Consider **claims 14, 19, 27, and 28**; Padovani discloses performing address translation on the first and second packets to determine respective addresses (paragraph 19, line 9 – paragraph 20, line 11; paragraph 21, lines 1-10; paragraph 52, lines 3-9; paragraph 93, lines 1-27); determining whether interference will occur between the transmissions that would prevent completion of the transmissions (paragraph 19, line 9 – paragraph 20, line 11; paragraph 21, lines 1-10; paragraph 52, lines 3-9; paragraph 93, lines 1-27); and scheduling the transmissions of the first and second packets to avoid the interference if interference would occur between the transmissions (paragraph 19, line 9 – paragraph 20, line 11; paragraph 21, lines 1-10; paragraph 52, lines 3-9; paragraph 93, lines 1-27).

Except:

Ethernet MAC address based on respective IP addresses.

In the same field of endeavor Ota discloses Ethernet MAC address based on respective IP addresses (abstract lines 1-19; column 7, lines 11-17; column 9, lines 10-18).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ota into the method of Padovani in order to realize efficient communication.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joel Ajayi whose telephone number is (571) 270-1091. The Examiner can normally be reached on Monday-Thursday from 7:30am to 5:00pm and Friday 7:30am to 4:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Joel Ajayi

August 06, 2007

CHARLES N. APPIAH
SUPERVISORY PATENT EXAMINER